

Amendments to the Claims:

33. (Currently Amended) A method for depositing ultrasound energy in body tissue, the method comprising:

emitting ultrasound energy from a first aperture and a second aperture with a center of the first aperture being displaced a first distance from a center of the second aperture; and

emitting ultrasound energy from a third aperture having a center displaced a second distance from the center of the second aperture;

wherein the second distance is different than the first distance and the third aperture has a size that is different than at least one of a size of the first aperture and a size of the second aperture;

wherein the ultrasound energy is emitted from the apertures to produce a reduced grating-lobe beam of ultrasound energy in the body tissue; and

wherein the energy emitted from at least two of the first, second, and third apertures are produced in response to separate excitation signals; and

wherein the second aperture is disposed adjacent the first aperture and the third aperture is disposed adjacent to the second aperture with the second aperture disposed between the first and third apertures.

34. (Previously Added) The method of claim 33 further comprising independently controlling phases of the ultrasound energy emitted from the first, second, and third apertures.

35. (Currently Amended) The method of claim 34 wherein the phases are controlled to steer the beam through an angle up to approximately ninety degrees relative to a mainbeam direction of the emitted energy from the first, second, and third apertures with the phases of the emitted energy being the same.

36. (Previously Added) The method of claim 34 wherein the phases are controlled to steer the beam to at least two distinct focal positions within the body tissue.

37. (Previously Added) The method of claim 33 further comprising independently controlling amplitudes of the ultrasound energy emitted from the first, second, and third apertures.

38. (Previously Added) The method of claim 33 further comprising independently controlling frequencies of the ultrasound energy emitted from the first, second, and third apertures.

39. (Previously Added) The method of claim 33 further comprising independently controlling phases, amplitudes, and frequencies of the ultrasound energy emitted from the first, second, and third apertures.

40. (Previously Added) The method of claim 39 wherein the phases, amplitudes, and frequencies are controlled such that the beam provides a substantially uniform temperature profile within a region of the body tissue.

41. (Previously Added) The method of claim 39 further comprising imaging the body tissue and controlling the phases, amplitudes, and frequencies in response to the imaging.

42. (Previously Added) The method of claim 41 wherein the imaging is magnetic resonance imaging.

43. (Previously Added) The method of claim 33 wherein the emitting emits ultrasound energy from the apertures with frequencies between about 0.1 MHz and about 100 MHz.

44. (Previously Added) The method of claim 33 wherein the separate excitation signals cause the energies emitted from the at least two of the first, second, and third apertures to have different phases.

45. (Currently Amended) A method for depositing ultrasound energy in body tissue, the method comprising:

emitting ultrasound energy from a first plurality of apertures of a first size;

emitting ultrasound energy from a second plurality of apertures of a second size different from the first size, the first and second apertures disposed in an array such that centers of the apertures are displaced from each other by at least two different distances; and

independently controlling at least one of phases, amplitudes, and frequencies of the ultrasound energy emitted from the first and second pluralities of apertures;

wherein the ultrasound energy is emitted from the apertures to produce a reduced grating-lobe beam of ultrasound energy in the body tissue; and

wherein the at least two different distances are measured from one aperture to two adjacent apertures on opposite sides of the one aperture.

46. (Currently Amended) The method of claim 45 wherein the phases are controlled to steer the beam through an angle up to approximately ninety degrees relative to a mainbeam direction of the emitted energy from the first and second pluralities of apertures with the phases of the emitted energy being the same.

47. (Previously Added) The method of claim 45 wherein the phases are controlled to steer the beam to at least two distinct focal positions within the body tissue.

48. (Previously Added) The method of claim 45 wherein the phases, amplitudes, and frequencies are controlled such that the beam provides a substantially uniform temperature profile within a region of the body tissue.

49. (Previously Added) The method of claim 45 further comprising imaging the body tissue and controlling the phases, amplitudes, and frequencies in response to the imaging.